

Mineral Industry Surveys

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TIN IN NOVEMBER 2002

Domestic consumption of primary tin in November was estimated by the U.S. Geological Survey to be 4% less than that in October and 7% less than that in November 2001. The Platts Metals Week average composite price for tin in November was \$3.02 per pound, the same as that in October and 5% higher than that in November 2001.

Data compiled by APEAL indicate that about 55% of the steel packaging (mostly tinplate) in the European Union has been recycled in 2001, with national results ranging from 25% to 88%. Steel packaging has greatly exceeded the recycling targets of the European Union Directive on Packaging and Packaging Waste. The directive stipulated that each packaging material needed to achieve a minimum recycling rate of 15% by June 30, 2001, and that recycling of all packaging materials was to be between 25% and 45%. Belgium (88%), Luxembourg and Germany (78%), the Netherlands and Austria (77%), Sweden (71%), and Switzerland (70%) remained the leading countries for steel packaging recovery. Norway, Denmark, and France each achieved around 55%, followed by the United Kingdom (37%), Portugal (28%), and Finland (25%). In 2001, 1,900,000 metric tons (t) of steel packaging were recycled in Europe. This represented a 15% increase over the figure for 2000, and a three-fold increase over 1990. On an international level, Japan (85%) and Northern Europe are the recycling leaders (7 countries exceeding 70%), followed by South Africa (64%), the United States (58%), Korea (53%), Australia (42%), and Brazil (40%) (APEAL News, 2002).

Control of the Huanuni tin mine in Bolivia remains undecided more than 6 months after former concession holder RBG Resources was liquidated. In early May, the Corporacion Minera de Bolivia (COMIBOL) took control of the operation through a court order. Soon afterward, a deal was announced under which Compania Minera Colquiri (a joint venture between Bolivian mining company Comsur and the United Kingdom government investment arm CDC Group) would buy the concession to exploit the 300-metric-ton-per-month mine along with the Vinto tin smelter, also once owned by RBG. Under

Bolivian law, mines remain the property of the state but can be exploited by private companies in exchange for a royalty paid to COMIBOL. Ownership of the Vinto smelter has been transferred to Compania Minera Colquiri, but the Huanuni mine remained under the control of COMIBOL (Platts Metals Week, 2002a).

The new beverage container deposit program in Germany is scheduled to start in early 2003. An effort by beverage producers and retailers to stop the redemption program was rejected by a Federal Constitutional Court. Under the program, consumers will pay a deposit of 25 cents on a small container, and a deposit of 50 cents is charged on containers larger than 1.5 liters (Container Recycling Report, 2002).

In Vietnam, the new tin mill owned by Malaysian tinplate producer Perusahaan Sadur Timah is expected to start in October 2003. On completion, the new facility will have a tinplating capacity of 90,000 metric tons per year. Feedstock will come mainly from Japan and South Korea. About 50% of the plant's output would be sold within Vietnam, with the rest sold to Laos, Cambodia, and Southern China (Platts Metals Week, 2002b).

A tin and tungsten processing works is expected to start operation in Kyrgyzstan in 2003. The works, which is being built by a Russian-Kyrgyz joint venture, will process non-ferrous ores from the Sary-Dzhazsk Mine in Kyrgyzstan's Issyk-Kul region. The Kyrgyz government estimates tin reserves at the mine at 160,000 t and tungsten reserves at several thousand tons. The construction of the works was started several years ago but stopped in the early 1990s owing to a lack of funding (Metal Bulletin, 2002a).

In Australia, it was announced that a contractor will assume operational duties for the country's largest tin mine, the Renison Bell tin mine in Tasmania. Until recently, Renison Consolidated Mines appeared to be poised to purchase the mine from Murchison United, but the deal has collapsed. Now Murchison has entered into a 5-year agreement with privately owned mining contractor Barmenco to develop the full potential of the mine.

Barmenco will provide contractual mine operating and management services to Renison Bell and will fund the mine's working capital requirements. Murchison will retain 100% ownership of Renison Bell Ltd., but the two partners will equally share the cash flow surplus (Metal Bulletin, 2002b).

Japanese electronics manufacturers intend to phase out the use of conventional tin-lead solders over the next four years, boosting demand for tin. Authorities there predict widespread adoption of lead-free solders containing about 96% tin, 3% silver, and 1% copper. This alloy, which is recommended by the Japan Electronics and Information Technology Industries Association, has a melting point of 220°C, compared to 183° C for conventional solders. Some companies are experimenting with other alloys with lower melting points. Experience to date is that products using small printed circuit boards (i.e. mobile phones) work well with lead free solders, but those with large ones (i.e. computers) face some problems (CRU Tin Monitor, 2002).

Update

On January 3, 2003, the Platts Metals Week composite price for tin was \$3.06 per pound.

References Cited

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- Metal Bulletin, 2002b, Murchison to revive Renison Bell after deal collapses: Metal Bulletin, no. 8734, December 19, p. 5.
- Platts Metals Week, 2002a, Ownership of Huanuni tin mine remains in play: Platts Metals Week, v. 73, no. 48, December 2, p. 9.
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TABLE 1
SALIENT TIN STATISTICS 1/

(Metric tons, unless otherwise noted)

	2002			
	2001	October	November	January- November
Production, secondary e/ 2/	13,900	900	900	9,900
Consumption:				
Primary	34,200	3,190 r/	3,060	34,200
Secondary	6,990	776 r/	763	8,620
Imports for consumption, metal	37,500	4,010	NA	NA
Exports, metal	4,350	236	NA	NA
Stocks at end of period	14,800	6,880 r/	6,750	XX
Prices (average cents per pound): 3/				
Metals Week composite 4/	314.88	302.39	301.54	XX
Metals Week New York dealer	211.48	204.11	202.10	XX
London, standard grade, cash	203.00	192.00	197.00	XX
Kuala Lumpur	200.77	192.54	191.69	XX

e/ Estimated. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to no more than three significant digits, except prices.

2/ Includes tin recovered from alloys and tinplate. The detinning of tinplate (coated steel) yields only a small part of the total.

3/ Source: Platts Metals Week.

4/ The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges, and a risk factor. It is normally substantially higher than other tin prices.

TABLE 2
METALS WEEK COMPOSITE PRICE 1/

(Cents per pound)

Period	High	Low	Average
2001:			
November	301.03	272.87	287.17
December	297.98	283.04	289.64
Year	359.89	262.81	314.88
2002:			
January	287.97	277.20	280.68
February	280.03	267.12	273.15
March	283.34	276.69	278.81
April	291.33	283.90	288.55
May	299.15	290.78	296.72
June	311.49	299.48	304.92
July	316.83	290.53	308.64
August	286.95	272.37	279.74
September	295.72	277.95	286.19
October	308.99	294.63	302.39
November	306.01	297.88	301.54

1/ The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges, and a risk factor. It is normally substantially higher than other tin prices.

Source: Platts Metals Week.

TABLE 3
TINPLATE PRODUCTION AND SHIPMENTS IN THE UNITED STATES 1/

(Metric tons, unless otherwise noted)

Period	Tinplate waste (waste, strips, cobble, etc.) (gross weight)	Tinplate (all forms)			Shipments 2/
		Gross weight	Tin content	Tin per metric ton of plate (kilograms)	
2001	97,800	2,000,000	7,800	3.9	2,010,000
2001:					
December	3,880	136,000	668	4.9	130,000
2002:					
January	W	187,000	683	3.6	191,000
February	5,330	191,000	640	3.3	152,000
March	4,440	188,000	588	3.1	163,000
April	5,310	173,000	535	3.1	173,000
May	5,290	204,000	757	3.7	178,000
June	5,080	207,000	615	3.0	178,000
July	5,430	210,000	572	2.7	189,000
August	4,980	208,000	598	2.9	186,000
September	5,070	205,000	581	2.8	183,000
October	4,830 r/	209,000 r/	620 r/	3.0	196,000
November	4,930	211,000	631	3.0	NA

r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to no more than three significant digits.

2/ Source: American Iron and Steel Institute monthly publication.

TABLE 4
U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS 1/

(Metric tons)

Country or product	2002			January- October
	2001	September	October	
Imports:				
Metal (unwrought tin):				
Bolivia	6,040	494	729	5,000
Brazil	5,510	426	425	4,020
Chile	122	--	--	--
China	6,360	1,160	381	6,850
Hong Kong	20	--	--	--
Indonesia	3,880	120	860	3,060
Malaysia	674	16	1	102
Peru	14,000	2,000	1,590	17,100
Russia	143	--	--	21
Singapore	145	--	--	--
United Kingdom	118	--	--	2
Other	434	3	20	184
Total	37,500	4,220	4,010	36,300
Other (gross weight):				
Alloys	3,830	237	126	2,730
Bars and rods	539	13	14	158
Foil, tubes, pipes	1	(2/)	--	(2/)
Plates, sheets, strip	529	2	1	125
Waste and scrap	3,700	73	79	495
Miscellaneous	13,900	348	169	7,350
Total	22,500	673	389	10,900
Exports (metal)	4,350	276	236	2,380

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 5
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT 1/

(Metric tons of contained tin)

Product	2002							
	2001	October			November			January- November 2/
		Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) 3/	W	142 r/	W	142 r/	137	W	137	1,550
Babbitt	770	19 r/	22 r/	42 r/	18	18	36	465
Bar tin and anodes	570	13 r/	W	13 r/	13	W	13	179
Bronze and brass	2,790	97	105	202	85	95	180	2,230
Chemicals	7,590	630	W	630	630	W	630	6,920
Collapsible tubes and foil	W	W	W	W	W	W	W	W
Solder	16,800	949 r/	341 r/	1,290 r/	828	339	1,170	13,300
Tinning	1,070	36	--	36	36	--	36	379
Tinplate 4/	7,800	620 r/	--	620 r/	631	--	631	6,820
Tin powder	W	W	W	W	W	W	W	W
White metal 5/	1,390	W	W	W	W	W	W	W
Other	2,390	83 r/	8 r/	91 r/	77	11	88	1,040
Total reported	41,200	2,590 r/	476 r/	3,070 r/	2,460	463	2,920	32,900
Estimated undistributed consumption 6/	--	600	300	900	600	300	900	9,900
Grand total	41,200	3,190 r/	776 r/	3,970 r/	3,060	763	3,820	42,800

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes revisions to previous months' data.

3/ Includes terne metal.

4/ Includes secondary pig tin and tin components of tinplating chemical solutions.

5/ Includes pewter, britannia metal, and jewelers' metal.

6/ Estimated consumption of plants reporting on an annual basis.